

A Community Approach to Climate Action Planning and Implementation

5th State and Local Climate Change
Partners' Conference
Annapolis, MD
November 20-22, 2002

Debra Sachs, Director
Alliance for Climate Action
10% Challenge Program, Burlington, VT





Today's remarks...

- Introduction
- The Process--Alliance for Climate Action and 10% Challenge program
- Education and Outreach
- Lessons Learned and Next Steps

Burlington's Climate Action Plan...

- 2-year task force process, plan adopted by City Council in 2000
- **Five broad strategies** to reduce **annual GHG** emissions by **156,000 tons**
- Plan highlights need to raise public awareness, to educate, and to motivate people
- Establishes an "advocacy" function

The Climate Action Plan

A Plan to Save Energy and Reduce
Greenhouse Gas Emissions



Burlington Climate Protection Task
Force
Burlington, Vermont, USA
March 2000

Adopted by Burlington City Council—May 1, 2000

Identify/enhance your assets...



Municipally-owned power plant fueled by renewable resources; and \$11M local investments in energy efficiency programs, saving \$8 million annually



Five Plan Strategies

1. Implement climate action plans for municipal buildings and operations
2. Support efficiency programs
3. Public education campaign: 10% Challenge
4. Support alternative-energy fuel options
5. Implement climate-friendly transportation projects

Alliance for Climate Action

- City of Burlington (Mayor, Planning, Economic Dev., Public Works, Eco-Info and Legacy projects)
- Burlington Electric Department
- Chittenden County Regional Planning Commission
- Chittenden Metropolitan Planning Organization
- Chittenden County Transportation Authority
- Vermont Energy Investment Corp/Efficiency VT
- Vermont Department of Public Service
- Vermont Agency of Natural Resources
- Vermont Agency of Transportation (Vtrans)
- E-Vermont (alt-fueled vehicles)
- University of Vermont
- Fletcher Allen Health Care
- Underground Railway Theater
- Vermont Community Foundation

Alliance for Climate Action Mission

- To support implementation of the plan to reduce GHG emissions by 10 percent.
- To monitor and report the community's progress.
- To work with regional and statewide entities to achieve this aim, and to support the expansion of this effort beyond the City of Burlington.

From planning to implementation...10% Challenge

A voluntary program for households and businesses to reduce CO₂ emissions by 10 percent by 2010

(70K tons, almost 1/2 of our reductions goal!)



Enlist: Burlington's homeowners, businesses, government and schools to join.

Empower: Burlington's citizens with the information, tools and support to reduce emissions.

Document: Burlington's community progress

Recognize: using a common platform across which these actions might be recognized, tracked, and reported to the community.



The program is...

- Voluntary and participatory
- Two sectors
- All ages and profiles
- Web site and support (EPA calculator)
- On-line and on paper
- Multiple marketing layers
- Monitoring and Reporting “back office”

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Put the chill on global warming
...reducing greenhouse emissions by ten percent..

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The 10% Challenge is a voluntary program to raise public awareness about global climate change and to encourage households and businesses to reduce their greenhouse gas emissions by at least 10 percent.

All households and businesses are invited to [sign-up](#), accept the challenge and begin taking actions today.

Senator Leahy says "A small state can lead the way in the effort to stop climate change. By taking the 10% Challenge, Vermonters can be part of the solution, and set an example for other states."

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Residential Calculator

You are currently in the Residential Calculator
[Switch to Business Calculator](#)

If you are having trouble using the calculator or have any questions, please contact Erika at eswahn@10percentchallenge.org or Laura at lpagiarulo@10percentchallenge.org or call (802) 865-7375.

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Calculate Your Household's Carbon Dioxide (CO2) Emissions


| | | |
|--|---|------------------------|
| 1. Tell us about your household | Enter your data | |
| How many people live in your home? | <input type="text" value="1"/> | |
| How do you heat your house? | <input type="text" value="Electric heat"/> Help | |
| 2. Please answer the questions below. | Enter your data | CO2 emissions per year |
| On average, how many miles do you put on your car(s)? | <input type="text" value="0"/> miles | |
| <input checked="" type="radio"/> Per Week <input type="radio"/> Per Year | | |

mailto:lpagiarulo@10percentchallenge.org

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| | | | |
|--|---|--|--|
| | 2. Please answer the questions below. | Enter your data | CO2 emissions per year |
| | On average, how many miles do you put on your car(s)? 400 miles/week or 20,800 miles/year is about average in the United States | <input type="text" value="0"/> miles <input checked="" type="radio"/> Per Week <input type="radio"/> Per Year Help | |
| | What is the average gas mileage for your car? If you're unsure, assume your car gets 22 miles per gallon, which is about average. | <input type="text" value="0"/> miles per gallon Help | <input type="text" value="0"/> 18,500 pounds per year is about average in Vermont. |
| | On average, how much do you pay for electricity each year? \$880 is about average for a Vermont household. Our calculations assume that you pay 11.8 cents/kWh | <input type="text" value="0"/> Help | <input type="text" value="0"/> 6,600 pounds per year is about average in Vermont |
| | On average, how much do you spend on natural gas each year? \$1050 is about average for a Vermont household. Our calculations assume that you pay \$1.00 / ccf | <input type="text" value="0"/> Help | <input type="text" value="0"/> 12,600 pounds per year is about average in Vermont |
| | On average, how many gallons of fuel oil do you purchase each year? | <input type="text" value="0"/> | <input type="text" value="0"/> 14,500 pounds is about average |
| | What proportion of recyclables (paper, glass, metals, plastics) does your household currently recycle? 25% is about average in the United States | <input type="text" value="0"/> percent Help | <input type="text" value="2,900"/> 4800 pounds is about average in the U.S. for a household of two people |
| | Your Total Emissions | | <input type="text" value="2,900"/> |

Home Energy Actions

The following actions save energy, money, and reduce your greenhouse gas emissions. Select the actions you plan to implement, to see how much each action saves. The actions are divided into two categories. Choose from the first set if you decide to replace equipment that is currently working. Choose actions in the second section if you are already shopping for new equipment (you are not retiring something to reduce emissions) and you plan to choose efficient equipment. Please note that it is fine to choose some actions from the first set and some from the second to help you reach your 10% Challenge Goal.

Replace Inefficient Home Energy Equipment:

Select actions in this section if you plan to retire items early and replace them with more energy efficient equipment. This can be a great way to reduce your household emissions.

| Suggested action: | Pounds of CO2 you could avoid | | Will you take this action? |
|---|--|--|--|
| Lighting | | | |
| Replace <input type="text" value="0"/> incandescent light bulb(s) with high efficiency compact fluorescent lamp(s). Help | <input type="text" value="0"/> pounds/yr | <input type="text" value="0"/> % of your total | <input type="radio"/> Yes <input checked="" type="radio"/> No |
| Install <input type="text" value="0"/> dedicated fluorescent fixture(s) instead of a fixture(s) that uses incandescent bulbs. Help | <input type="text" value="0"/> pounds/yr | <input type="text" value="0"/> % of your total | <input type="radio"/> Yes <input checked="" type="radio"/> No |
| Replace <input type="text" value="0"/> halogen torchiere(s) with a compact fluorescent model. Help | <input type="text" value="0"/> pounds/yr | <input type="text" value="0"/> % of your total | <input type="radio"/> Yes <input checked="" type="radio"/> No |
| Install <input type="text" value="0"/> lighting controls (such as motion sensors and timers) and use them to control indoor lighting | <input type="text" value="0"/> pounds/yr | <input type="text" value="0"/> % of your total | <input type="radio"/> Yes <input checked="" type="radio"/> No |

If so, by how much?

percent.

[Help](#)

Could you reduce the amount of waste your household generates?

pounds/yr

%
of your total

☐ Yes
☒ No

If so, by how much?

percent more.

For example, you could increase or start backyard composting, buy food in bulk, reuse garbage bags and glass jars, etc.

[Help](#)

[Tips for Further Savings](#)

Congratulations on signing up and participating in the Ten Percent Challenge

Based on the actions you selected, you will reduce your emissions by

pounds/yr

% of your total

Your new total annual CO₂ emissions will be

pounds/yr

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Residential Resources

Click on any of the items below for more information.

Home Energy Actions

- [Appliances](#)
- [Lighting](#)
- [Space Heating](#)
- [Water Heating](#)

Household Waste

- [Reuse, Recycle, and Compost](#)

NEW Appliances and Equipment

- [Appliances](#)
- [Space Heating](#)
- [Water Heating](#)

Transportation

- [Bicycling and Walking](#)
- [Fuel Efficient and Alternative Energy Vehicles](#)
- [Public Transit](#)
- [Rideshare Programs](#)
- [Telecommuting](#)

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Business Calculator

You are currently in the Business Calculator
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Welcome to the Ten Percent Challenge Business Calculator!

The business calculator is a tool that will help you:

- ~ Identify your current emissions of greenhouse gases,
- ~ Define a 10% emissions reduction target,
- ~ Identify the strategies and measures that can help you reach this goal, and
- ~ Identify and contact resources to assist and facilitate your implementation of emissions reduction measures and strategies.


The calculator is organized into two primary sections:

1. Calculation of Current Energy Related Emissions and a 10% Reduction Target, and
2. Measures and Strategies to Reduce Emissions

In addition, two optional sections allow you to estimate current emissions related to solid waste disposal, and to compare your organization's energy use to similar facilities. It is not necessary to complete these optional sections in order to participate in the Ten Percent Challenge, but you may find the information helpful in your planning.

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| Energy consumption | Enter your data | CO2 emissions per year |
|--|---|--------------------------------|
| How much electricity does your firm use each year? (Please answer in kWh) Note: you can get this information from your electricity provider | <input type="text" value="0"/> kWh | <input type="text" value="0"/> |
| How much fuel oil (#2 or diesel) does your firm use each year? (Please answer in gallons) | <input type="text" value="0"/> gallons | <input type="text" value="0"/> |
| How much natural gas (pipeline gas) does your firm use each year? (Please answer in hundred cubic feet (ccf)) | <input type="text" value="0"/> ccf | <input type="text" value="0"/> |
| How much propane does your firm use each year? (Please answer in gallons) | <input type="text" value="0"/> gallons | <input type="text" value="0"/> |
| How much kerosene does your firm use each year? (Please answer in gallons) | <input type="text" value="0"/> gallons | <input type="text" value="0"/> |
| How much gasoline does your firm use each year to power vehicles in your business fleet? (Please answer in gallons) | <input type="text" value="0"/> gallons | <input type="text" value="0"/> |
| How much diesel fuel does your firm use each year to power vehicles in your business fleet? (Please answer in gallons) | <input type="text" value="0"/> gallons | <input type="text" value="0"/> |
| Click here if you are interested in including your organization's solid waste generation in the greenhouse gas emission summary. Solid Waste Generation | | |
| Click here if you are interested in comparing energy consumption at your organization to national averages for similar facilities. Compare Energy Consumption | | |
| Total Estimated Annual CO2 Emissions From Energy Use and Transportation | <input type="text" value="0"/> Pounds of Carbon Dioxide/Yr. | |
| Your Ten Percent Challenge Goal is An Emissions Reduction of: | <input type="text" value="0"/> Pounds of Carbon Dioxide/Yr. | |

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Business Resources

Click on any of the items below for more information.

Appliances

Power Strips - Consider controlling any "instant-on" electronic equipment with a power strip and its toggle switch.

Replace with Energy Star - Require Energy Star labeled product when purchasing or specifying residential class appliances such as office refrigerator, or when purchasing new office equipment. Consider retiring older appliances early and replacing with Energy Star labeled products.

Turn it off - Turn off un-needed copiers and printers during non-business hours. Some of this equipment, as well as fax machines, have a feature that allows putting it into "sleep" mode.

Commercial Food Service

Ask for Water - Instead of automatically supplying glasses of water to all restaurant customers, ask if each would like one.

Don't Heat your Freezer - Site heat-producing appliances away from refrigeration equipment. (It is not uncommon to see grilling or frying equipment next to coolers and freezers.)

Insulate Cooler Doors - Use insulated doors instead of "anti-sweat" heaters on display-cooler doors.

Utilize Outdoor Air - Install an "outdoor air economizer" for walk-in coolers.

Lighting



Business Resources - Microsoft Internet Explorer

Replace with Energy Star

Benefits

The typical existing refrigerator is 12 years old and uses approximately 1200 kWh annually. A typical new Energy Star refrigerator uses less than half that amount and it may be cost-effective to provide early retirement for the existing model. The Energy Star label ensures that the equipment is rated for optimal efficiency, thereby reducing energy costs and emission levels.

Considerations

The existing equipment should be metered to determine actual consumption levels.

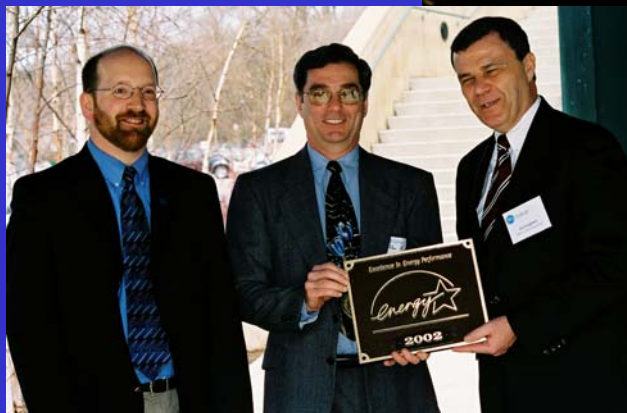
Resources

Burlington Electric Department
www.burlingtonelectric.com
 Contact: Ron Manganiello, 865-7340, rmanganiello@burlingtonelectric.com

Efficiency Vermont



April 15th Inaugural Celebration
for 10% Challenge Program—300
people participated, 23 exhibits



Promotion & Outreach



Bus Signs



Press Conferences



Events

Other efforts:

- Participation forms
- Brochures
- PSA's

Business Cards-Tips



Business Posters





Businesses accept
the 10% Challenge...



10% Challenge Awards Breakfast for Businesses



ACA recognizes participants for their leadership and plans to communicate their successes to the community

Rhino Foods recognized by Governor Dean and Mayor Clavelle at 2001 Climate Wise Awards Breakfast, Burlington Boathouse.

We Want to Have Fun...



Climo-dino...our extinction consultant and messenger

Moving ahead. . .

Partnering with municipalities, State of Vermont, EPA, DOE and others in next steps:

- Tracking and reporting community progress
- Promote 10% Challenge
- Recognize achievements
- Explore transportation demand management (TDM) strategies
- Move program beyond Burlington
- Participate in and share experiences
- Have fun!!

Lessons learned. . .

- Motivate for action (time, health, money, quality of life)
- Don't let the science, or lack there of, slow you down
- Find a champion (find more than one)
- Involve many stakeholders at the outset (utilities, faith-based orgs)
- Make it part of a larger vision (involve regional entities)

Lessons learned (con't)

- Keep it simple—message for kids
 - Have fun (Climo-Dino)
8. Tout early success stories
- Have a hook (10% challenge)-single image/branding
10. Government initiated, via a coalition or alliance of government and non-government entities

New England Cites for Climate Protection Network-NECCPN

Objectives

- To provide a forum for elected officials and staff to share experiences, stories and lessons learned
- To develop a common set of tools for use by all communities
- To work more closely with states and provinces to implement the 2001 Regional Climate Action Plan

New England Cites for Climate Protection Network-NECCPN

Priorities/Needs

1. Networking to achieve politically difficult things.
2. Recruit other communities to get involved
3. Bring outside resources to the table
4. Form a speakers bureau, organized presentation for community outreach.
5. Develop a resource directory (who do they work for, what is their background and what have they been doing)

Resources and Contacts

- Alliance for Climate Action

Tom Buckley, Chair, tbuckley@burlingtonelectric.com

Debra Sachs, Director, dsachs@ccrpcvt.org

(802) 846-4490 x249

Laura Pagliarulo, lpagliarulo@10percentchallenge.org

Erika Swahn, eswahn@10percentchallenge.org

- Ten Percent Challenge Program

www.10percentchallenge.org or 802-865-7375

ICLEI, www.iclei.org



Climate change
is real... Can we
afford to wait
any longer?

... Vermonters
aren't waiting,
they're accepting
the challenge!!



CO₂ emissions profile for Burlington

Burlington 1997 CO₂ emissions by Sector

